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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Jouni Korhonen

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EXAMINER

PHAM, TITO Q

ART UNIT

PAPER NUMBER

2466

MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/593,987	KORHONEN ET AL.	
	Examiner	Art Unit	
	TITO PHAM	2466	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 18, 2011 has been entered.

Claims 12-22 are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 20-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 20 is directed to a name server, yet the body of the claim only recites a server. Thus, the actual structure of the claimed name server is unclear.

Claim 21 and 22 are rejected for the same reason set forth in the independent claim above.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chin et al. (US Pat. No. 7,277,453) in view of Huitema (US Pat. No. 6,016,512) in view of Kim (US Pub. No. 2004/0218611) in view of Sbida (US Pat. No. 7,554,991).

Regarding **claims 12 and 15**, Chin discloses a method for determining a required access point for data transmission between a first operator network and at least a second operator network, the first operator network comprising a first name server and the second operator network comprising a second name server and the required access point for receiving communication from at least the first operator network (figures 2 and 4, (col. 12 lines 62-67 to col. 13 lines 1-54), the method comprising:

sending a query for a network address of a node in the second operator network, the query being directed to the first name server (col. 13 lines 12-15);

transmitting the query from the first name server to the second name server of the second operator network (col. 13 lines 16-24), the second name server comprising network addresses of node of the second operator network (col. 12 lines 63-65);

determining the network address of the required node in the second name server (col. 13 lines 25-33);

after receiving the network address of the required access point from the second name server (col. 13 lines 33-35), transmitting, by the first name server, a query

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response including only the network address of the required node to a control element of the first operator network (col. 13 lines 33-37); and

setting up a connection from the control element of the first operator network to the required access point of the second network on the basis of the network address of the required access point in the query response (col. 13 lines 62-67), the required access point of the second network routing messages originated from the first operator network to an intended network address in the second network (col. 13 lines 55-67).

Chin further teaches DNS server A communicates with DNS server B through DNS-ALG GW A (network A) and DNS-ALG GW B (network B) (col. 13 lines 16-24). Chin does not explicitly teach a DNS server directly transmits a query to another DNS server. However, Huitema discloses a local server relays a DNS request to a root server and/or a remote server after determining that the local server does not have a requested address (figure 1; col. 1 lines 39-55). Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to implement in Chin a step of DNS server relays a request to another DNS server. The motivation is to obtain a correct answer/response from an appropriate server.

Chin further teaches the DNS response includes the gateway address (col. 10 lines 54-62; the IPv6 is the gateway address, the IPv4 is the private node address).

Chin does not teach in response to detecting a connection setup message from the first operator network to the second operator network, generating a DNS request, and return the gateway address. However, Kim discloses in response to detecting a

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connection setup message from the first operator network to the second operator network, generating a DNS request, and returns the gateway address (paragraph 158). Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to implement in Chin in response to detecting a connection setup message from the first operator network to the second operator network, generating a DNS request, and return the gateway address. The motivation is to obtain a public destination address (gateway address) for communication between two private address nodes.

Chin does not teach at least the second operator network is an IP Multimedia Subsystem (IMS) data transmission network. However, in the same field of endeavor, Sbida discloses an User Equipment of a mobile network connects to an IP Multimedia Subsystem (IMS) data transmission network (figure 1, abstract, col. 9 lines 14-20). Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to substitute a known element (IMS network in Sbida) for another (second operator network in Chin) to obtain predictable result of data communication.

Regarding **claims 13 and 16**, all limitations in claims 12 and 15 are disclosed above. Chin further teaches wherein the second name server is a domain name server comprising, in a centralized manner, the network addresses of other network elements of the second operator network (figure 4; col. 13 lines 25-33; col. 12 lines 62-65) and wherein the required access point and each of the other network elements of the second operator network are not available in a public DNS system (figures 2 and 4;

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figure 5 steps 502 and 504; the addresses of internal elements of the private network reside in the private network's DNS server and not in a public DNS system).

Regarding **claim 14**, all limitations in claim 12 are disclosed above. Chin further teaches maintaining, in said first name server, network address data of at least one second name server for each operator network, with which the first operator network is communicating (col. 13 lines 16-24).

6. Claim 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chin et al. (US Pat. No. 7,277,453) in view of Huitema (US Pat. No. 6,016,512) in view of Kim (US Pub. No. 2004/0218611) in view of Sbida (US Pat. No. 7,554,991) in view of Callas et al. (US Pub. No. 2004/0133775).

Regarding **claim 17**, all limitations in claim 15 are disclosed above. Chin does not teach said second name server is an LDAP database. However, Callas discloses an e-mail server contains an LDAP server (paragraph 83). Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to implement in Chin an LDAP database. The motivation is to have a database containing user profiles.

7. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chin et al. (US Pat. No. 7,277,453) in view of Huitema (US Pat. No. 6,016,512) in view of Kim (US Pub. No. 2004/0218611) in view of Sbida (US Pat. No. 7,554,991) in view of Laurila (WO 2005/069,663).

Regarding **claim 18**, all limitations in claim 15 are disclosed above. Chin does not teach an interfacing network between the first and the second operator network is a GRX network. However, Laurila discloses an IMS interfaces an GPRS network (figure 1 elements 11 and 12). Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to substitute the private IP network with an IMS network and a public IP network with a GPRS network to obtain a predictable result of network compatibility.

Regarding **claim 19**, all limitations in claim 15 are disclosed above; Chin does not teach the required access point of said second network is an I-CSCF contact point. However, Laurila discloses the required access point of said second network is an I-CSCF contact point (figure 1). Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to implement in Chin the required access point of said second network is an I-CSCF contact point. The motivation is to control call session.

8. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chin et al. (US Pat. No. 7,277,453) in view of Huitema (US Pat. No. 6,016,512) in view of Kim (US Pub. No. 2004/0218611) in view of Sbida (US Pat. No. 7,554,991).

Regarding **claim 20**, Chin discloses a name server storing names arranged in an operator network (figure 4), said name server comprising:

a private name server including a network address of a required access point of the operator network (col. 13 lines 25-33; col. 14 lines 28-42), the required access

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point being arranged to receive communication from another operator network comprising a control element implementing a call/session control function and managing the routing of messages originated from the another operator network to an intended network address in the operator network (figure 2 gateways A and B),

wherein said private name server being is arranged to receive a query from a node of the another operator network regarding a network address of the required access point of the operator network (col. 13 lines 15-24; col. 14 lines 37-43);

said private name server is arranged to determine, on the basis of the query, the network address of the required access point (col. 13 lines 25-33); and

said private name server is arranged to return only the network address of the required access point to the name server of the another operator network for transmission to the control element of the another operator network (col. 13 lines 25-33; col. 14 lines 35-43).

Chin further teaches the DNS response includes the gateway address (col. 10 lines 54-62; the IPv6 is the gateway address, the IPv4 is the private node address).

Chin does not teach querying and returning only the gateway address. However, Kim teaches receives a gateway address query and returns the gateway address (paragraph 158). Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to implement in Chin in response to detecting a connection setup message from the first operator network to the second operator network, generating a DNS request, and return the gateway address. The motivation is

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to obtain a public destination address (gateway address) for communication between two private address nodes.

Chin further teaches DNS server A communicates with DNS server B through DNS-ALG GW A (network A) and DNS-ALG GW B (network B) (col. 13 lines 16-24). Chin does not explicitly teach a DNS server directly transmits a query to another DNS server. However, Huitema discloses a local server relays a DNS request to a root server and/or a remote server after determining that the local server does not have a requested address (figure 1; col. 1 lines 39-55). Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to implement in Chin a step of DNS server relays a request to another DNS server. The motivation is to obtain a correct answer/response from an appropriate server.

Chin does not teach at least the second operator network is an IP Multimedia Subsystem (IMS) data transmission network. However, in the same field of endeavor, Sbida discloses an User Equipment of a mobile network connects to an IP Multimedia Subsystem (IMS) data transmission network (figure 1, abstract, col. 9 lines 14-20). Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to substitute a known element (IMS network in Sbida) for another (second operator network in Chin) to obtain predictable result of data communication.

Regarding **claim 22**, all limitations in claim 20 are disclosed above. Chin further teaches said private name server is a private domain name server comprising, in a centralized manner, network addresses of other network elements of the operator

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network, and wherein the access point and each of the other network elements of the operator network are not available in a public DNS system (figures 2 and 4; figure 5 steps 502 and 504; the addresses of internal elements of the private network reside in the private network's DNS server and not in a public DNS system).

9. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chin et al. (US Pat. No. 7,277,453) in view of Huitema (US Pat. No. 6,016,512) in view of Kim (US Pub. No. 2004/0218611) in view of Sbida (US Pat. No. 7,554,991) in view of Callas et al. (US Pub. No. 2004/0133775).

Regarding **claim 21**, all limitations in claim 20 are disclosed above. Chin does not teach said second name server is an LDAP database. However, Callas discloses an e-mail server contains an LDAP server (paragraph 83). Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to implement in Chin an LDAP database. The motivation is to have a database containing user profiles.

Response to Arguments

10. Applicant's arguments regarding the second operator network is a IP Multimedia Subsystem network in claims 12-22 have been considered but are moot in view of the new ground(s) of rejection.

11. Applicant's arguments filed May 18, 2011 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the information on the network elements of the second network are not available from a DNS servers of the Internet) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In pages 10 and 11 of Remark, regarding independent claims 12, 15, and 20, Applicant argues that Huitema fails to disclose a name server of one network transmitting a query to a name server of another network. In particular, Applicant argues that Huitema only teaches servers in a same network. Examiner respectfully disagrees. Chin already teaches indirect communication between servers of different networks via network gateways DNS-ALG GW A (network A) and DNS-ALG GW B (network B) (col. 13 lines 16-24). The only missing part is a direct communication between the two servers which Huitema discloses in figure 1 and col. 1 lines 39-55 (a server directly transmits a query to another server). Further, Huitema discloses the local server transmits a query to a remote server (figure 1 and col. 1 lines 39-55). The local and the remote server are interpreted as residing in different networks. Also figure cited by Examiner (Huitema's figure 1 Prior Art) and figure provided in Applicant's argument (Huitema's figure 3, invention) are not the same. The set up of figure 3 is not necessary the same as figure 1. In fact, figure 1's description (col. 1 lines 27-62) does not identify the two servers are connected in a single network.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TITO PHAM whose telephone number is (571)272-4122. The examiner can normally be reached on Monday-Friday 8AM-5PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Ryman can be reached on 571-272-3152. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tito Pham/
Examiner, Art Unit 2466

/Daniel J Ryman/
Supervisory Patent Examiner, Art Unit 2466